Energy

Forces

Weathering And Erosion

Objective:3240-0502

Background:

There are two types of weathering and erosion: chemical and mechanical. These processes the change the face of the earth dramaticaly over time. It can be as quick as a flash flood or landslide which may take seconds, or as long as a river cutting its path through the land. Chemical processes include acid rain, acid etching by plants, oxidizing, and demineralizing by water. Mechanical processes include flash floods, landslides, creep, slump, exfoliation, root pry, frost action, mud slides, abrasion, mass wasting undercutting, avalanches, and glaciers. All of these are powered by four main sources gravity, water, wind, and waves. Of these main sources water seems to be the leader in changing the surface. This is likely due to the fact that Earth's surface is mostly covered by water.

Activity objective: Observe the changes caused by water erosion in different types of soil.

Materials:

- large cake pan
- sand
- gravel
- clay type soil
- fist size rocks water
- pitcher
- bucket
- items to incline the pan

Procedure:

- 1. Incline the pan filled with the finest of the soil types
- 2. Run water over it catching the sediments and water in the bucket.
- 3. Make observations of the pan and sediments.
- 4. Make a prediction what will happen with the next size.
- 5. Proceed through each type soil in much the same way until all have been done.

Safety Concerns:

Make sure that you follow all teacher directions.

Assessment

Have students analyze their findings and write a conclusion or explaination to those findings.







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